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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,847

11/30/2005

Fyodor Urnov

8325-0034 (S34-US1)

7879

20855

7590

02/26/2008

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EXAMINER

SISSON, BRADLEY L

ART UNIT

PAPER NUMBER

1634

MAIL DATE

DELIVERY MODE

02/26/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,847	Applicant(s) URNOV ET AL.	
	Examiner Bradley L. Sisson	Art Unit 1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 6-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/6/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 1 and 6-15 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 01 August 2007.
2. This application contains claims 1 and 6-15, drawn to an invention nonelected with traverse in the reply filed on 01 August 2007. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Information Disclosure Statement

3. Acknowledgement is made of applicant having filed cover pages identifying an Information Disclosure Statement with the response of 04 December 2007. A review of the entire submission on 04 December 2007 fails to identify any PTO-1449, or prior art being submitted on said date.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 2-5 remain rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,474,796 (Brennan).
6. Brennan, column 9, discloses an array of oligonucleotides that comprises all possible 10-mers. Each of these oligonucleotides occupies a distinct address on the support. Such a showing is deemed to meet a limitation of claims 2-5.
7. While claims 2-5 have been drafted in terms of a product-by-process, there is not structural difference from the polynucleotides of the array of Brennan from that claimed instantly. Accordingly, and in the absence of convincing evidence to the contrary, claims 2-5 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,474,796 (Brennan).

Response to argument

8. At page 11 of the response of 04 December 2007, hereinafter the response, applicant asserts:

In the instant case, it has not been shown that every limitation of the claims appears identically in Brennan. Specifically, claims 2-5 are drawn to arrays comprising sequences corresponding to accessible regions of cellular chromatin. Furthermore, the sequences on the array are isolated from cellular chromatin.

By contrast, Brennan relates to arrays of synthetic oligonucleotides. These synthetic sequences are not isolated from cellular chromatin based on altered reactivity to a probe of chromatin structure and, as such, do not necessarily and inevitably correspond to accessible regions, as required to show anticipation. In fact, the chance that an array of synthetic 10-mers would represent the same sequences corresponding to accessible regions is astronomically small - certainly not the "necessary and inevitable" standard required to establish inherent anticipation.

9. The above argument has been fully considered and has not been found persuasive. It is noted that the claims are drawn to an array, which is claimed in terms of a product-by-process. The claims do not recite any specific size or nucleotide composition/sequence. Brennan teaches an array of oligonucleotides that comprises all possible oligomers of a given size. As such,

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Brennan teaches each and every possible sequence for every accessible region of all possible cellular chromatin.

10. While argument has been presented that “the chance that an array of synthetic 10-mers would represent the same sequences corresponding to accessible regions is astronomically small,” just the opposite is the case as the array of Brennan comprises all possible oligomers, and as such would, by default, comprise each and every sequence of the now claimed array. In fact, it is impossible that the array of Brennan would not comprise just such sequences. Further, applicant’s representative has presented no evidence of record that shows that an array that comprises all possible sequences could not comprise the now claimed sequences.

11. For the above reasons, and in the absence of convincing evidence to the contrary, claims 2-5 remain rejected under 35 USC 102(b).

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley L. Sisson whose telephone number is (571) 272-0751.

The examiner can normally be reached on 6:30 a.m. to 5 p.m., Monday through Thursday.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla, Ph.D. can be reached on (571) 272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bradley L. Sisson/
Primary Examiner, Art Unit 1634